

PROCEEDINGS

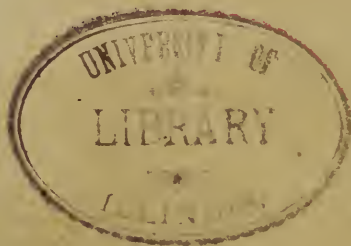
33

4

OF THE

LINNEAN SOCIETY

OF LONDON.



VOL. I.

From November 1838 to June 1848.

PRINTED FOR THE SOCIETY,

BY R. AND J. E. TAYLOR, RED LION COURT, FLEET STREET.

1849.

4. *Lent. nigripes*, Fries.

On the synonymy of this species, as well as of the two preceding, Mr. Berkeley makes some observations.

5. *Lent. Leveillei*, pileo tenui latè infundibuliformi repando explanato rigidiusculo floccis crispatis subfasciculatis rarioribus vestito, stipite æquali nigro-furfuraceo, lamellis confertis fuscatis decurrentibus glandulosis ochraceis acie granulato-dentatis posticè vix anastomosantibus.

Hab. ad Surinam.

The paper was illustrated by a series of drawings from the pencil of Mr. J. De C. Sowerby, F.L.S. &c.

March 4.

R. Brown, Esq., V.P., in the Chair.

James Scott Bowerbank, Esq., Francis Plomley, M.D., and David Price, Esq., were elected Fellows.

Read the commencement of "An Enumeration of the Plants of the Galapagos Islands." By J. D. Hooker, Esq., M.D., F.L.S. &c.

Read also some Additions and Corrections to his "Monograph of the *Myriapoda Chilopoda*" read during the last Session. By George Newport, Esq. Communicated by the Secretary.

These additions have reference chiefly to the characters and habits of the family *Lithobiidæ*, and to the genus *Scolopendrella* of M. Gervais. This genus Mr. Newport had in his *Synopsis Generum*, published at p. 193, proposed to refer as a subfamily to *Geophilidæ*; but on a closer examination of its characters, he finds that they indicate a much higher type of development and approximate it very nearly to *Lithobiidæ*. He proposes therefore to establish *Scolopendrellidæ* as a separate family, and to place them next after *Lithobiidæ*.

May 6.

The Lord Bishop of Norwich, President, in the Chair.

Benjamin Clark, Esq., was elected a Fellow; and Il Cavaliere Giambattista Amici, M. G. P. Deshayes, and Prof. Karl Friedrich von Ledebour, Foreign Members.

Read the conclusion of Prof. Köl liker's memoir on the *Hectocotylæ* of *Tremoctopus violaceus* and *Argonauta Argo*.

In this paper Prof. Köl liker gives a detailed description of the external form and anatomical structure of two remarkable parasites referable from their characters to the genus *Hectocotyle* of Cuvier, and bearing much resemblance to the *Hect. Octopodis* of that author. Of one of these, that which is parasitic on the *Argonaut*, Delle Chiaje has given an unsatisfactory account in his Memoirs on Comparative Anatomy, under the name of *Trichocephalus acetabularis*; and Costa has endeavoured, in the sixteenth volume of the second series of the 'Annales des Sciences Naturelles' to prove that it is only a separated portion of the animal on which it is found. But this opinion is, according to Prof. Köl liker, quite erroneous, all its characters indicating beyond a doubt that it is a distinct animal. The two species described were found by Prof. Köl liker at Messina, and are severally named by him *Hect. Tremoctopodis* and *Hect. Argonautæ*, from the animals on which they parasitically live.

Prof. Köl liker enters into a particular statement of the reasons which have induced him to believe that these *Hectocotylæ* are in reality the males of the *Cephalopods* on which they are found; of which reasons he gives the following summary:—

1. The *Hectocotylæ* have arteries and veins, a heart and branchiæ; and hence it is improbable that they should be Epizootic Worms.
2. *Hect. Argonautæ* and *Hect. Tremoctopodis* bear a close relation to the *Cephalopoda* in general, and more especially to the genera on which they are found; inasmuch as they have—
 - a. The same *spermatozoa*;
 - b. Contractile pigment-cells;
 - c. Similarly formed and similarly organized suckers;

- d. The same remarkable arrangement of the muscular fibres—the *Hectocotylæ* in the muscular envelope of the body, the *Cephalopoda* in their arms.
3. Among 280 *Argonauts* examined not a single male was found.
 4. Nevertheless the males must be very numerous, inasmuch as nearly all the *Argonauts* carry impregnated ova.
 5. The *Hectocotylæ* live in the neighbourhood of the female sexual organs of their *Cephalopods*, and are all males.
 6. The eggs of the *Argonaut* contain, according to Madame Power and Maravigna, embryos perfectly similar to the *Hect. Argonautæ*.

If this last statement be correct, adds Dr. Kölliker, there can be no doubt that the *Hect. Argonautæ* is the male of the *Argonaut*.

Read also a continuation of Dr. J. D. Hooker's "Enumeration of the Plants of the Galapagos Islands."

Anniversary Meeting.

May 24.

The Lord Bishop of Norwich, President, in the Chair.

The President opened the business of the Meeting, and the list of the Members whom the Society had lost during the past year having been first read, the Secretary proceeded to read the following notices of some among them.

The deaths among the Fellows amounted to thirteen. The first name is that of

Francis Baily, Esq., who was the son of a banker at Newbury in the county of Berks, and was born at that place on the 28th of April 1774. At the age of fourteen he was sent to London, where he remained in a mercantile house till his twenty-second year, and then travelled for a year or two in the United States. About the year 1801 he entered into business as a stock-broker; and soon afterwards distinguished himself as a mathematician and accountant by a series of highly useful and important works on the Purchase and Renewal of Leases and the Doctrine of Interest, Annuities and Insurances.

In the year 1811 he commenced his astronomical career by the

cupreo, antennis fuscis piceisve, pedibus fulvis flavisve; femoribus viridibus, alis sublimpidis.—Long. corp. lin. $\frac{2}{3}$ — $\frac{3}{4}$; alar. lin. 1— $1\frac{1}{4}$.

Hab. in Scotiâ, prope Edinam, *Dr. Greville, Rev. G. T. Rudd.*

6. *PTEROMALUS CERCIDES* ♂ et ♀, viridis, abdomine cupreo, antennis nigris, pedibus fulvis; femoribus viridibus, alis limpidis.—Long. corp. lin. 1; alar. lin. $1\frac{1}{2}$.

Hab. in Cambriâ Boreali, mense Septembri captus.

Fœminæ abdomen ovale subtùs carinatum.

7. *PTEROMALUS ECTION* ♂, viridis, scutello æneo-viridi, abdomine nigro-cupreo basi fulvo-maculato, pedibus fulvis; femoribus piceis, alis fuscis.—Long. corp. lin. 1; alar. lin. $1\frac{1}{2}$.

Hab. in Scotiâ, prope Edinam, *Dr. Greville.*

8. *PTEROMALUS XANTHE* ♂, viridis, abdominis disco æneo, antennis piceis, pedibus fulvis; femoribus piceis; tarsis flavis, alis limpidis.—Long. corp. lin. $1\frac{1}{4}$; alar. lin. $1\frac{3}{4}$.

Hab. in Scotiâ, prope Edinam, *Dr. Greville.*

9. *PTEROMALUS AOLLIS* ♂, viridis, scutello viridi-æneo, antennis fuscis basi viridibus, pedibus fulvis; coxis femoribusque viridibus; tibiis fusco-cinctis, alis limpidis.—Long. corp. lin. $\frac{2}{3}$ — $\frac{3}{4}$; alar. lin. 1— $1\frac{1}{4}$.

Hab. in Cambriâ Boreali, mense Septembri captus.

10. *PTEROMALUS ANTHO* ♂, viridis, abdomine purpureo, antennis nigris, pedibus piceis; femoribus viridibus, alis sublimpidis.—Long. corp. lin. 1; alar. lin. $1\frac{3}{4}$.

Hab. in Angliâ, *Rev. G. T. Rudd.*

11. *PTEROMALUS LEARCHUS* ♂, viridis, abdomine æneo-viridi, antennis fulvis basi flavis apice piceis, pedibus flavis, alis limpidis.—Long. corp. lin. $\frac{1}{2}$; alar. lin. $\frac{3}{4}$.

Hab. in Scotiâ, prope Edinam, *Dr. Greville.*

12. *PTEROMALUS ANTORIDES* ♂, viridis, abdomine purpureo flavo-maculato, antennis fuscis, pedibus flavis, alis limpidis.—Long. corp. lin. $1\frac{1}{4}$; alar. lin. 2.

Hab. in Angliâ, *Rev. G. T. Rudd.*

13. *PTEROMALUS SARAVUS* ♂, viridis, abdomine cyaneo-viridi disco cupreo, antennis piceis, pedibus flavis; femoribus viridibus, alis limpidis.—Long. corp. lin. $1\frac{1}{4}$; alar. lin. 2.

Hab. ———, ex Musæo *Rev. G. T. Rudd.*

14. *PTEROMALUS ANAXENOR* ♀, viridis, abdominis disco cyaneo-viridi, antennis nigris, pedibus fulvis fusco cinctis; tarsis flavis, alis limpidis.—Long. corp. lin. $1\frac{2}{3}$; alar. lin. 3.

Hab. ———, ex Musæo *Rev. G. T. Rudd.*

15. *PTEROMALUS TEDANIUS* ♀, viridis, abdomine basi fulvo, antennis piceis, pedibus flavis, alis subfulvis.—Long. corp. lin. 1; alar. lin. $1\frac{3}{4}$.

Hab. ———, ex Musæo *Rev. G. T. Rudd.*

16. *PTEROMALUS AMYNTOR* ♀, aureo-viridis, capite viridi, abdomine cyaneo-viridi fasciis cupreis, antennis ferrugineis, pedibus flavis; femoribus viridibus, alis limpidis.—Long. corp. lin. 1; alar. lin. $1\frac{3}{4}$.

Hab. ———, ex Musæo Rev. G. T. Rudd.

17. *PTEROMALUS NAUBOLUS* ♀, viridis, abdominis disco cupreo, antennis piceis, pedibus flavis; femoribus viridibus, alis limpidis.—Long. corp. lin. $1-1\frac{1}{4}$; alar. lin. $1\frac{3}{4}-2$.

Hab. ———, ex Musæo Rev. G. T. Rudd.

18. *PTEROMALUS AGLAUS* ♂, viridis, abdomine cupreo basi viridi, antennis piceis, pedibus fulvis; femoribus fusco cinctis, alis limpidis.—Long. corp. lin. $\frac{2}{3}$; alar. lin. 1.

Hab. prope Londinum, mense Julio.

19. *PTEROMALUS URGO* ♀, cyaneo-viridis, abdominis segmentis basi purpureis, antennis piceis, pedibus flavis; femoribus viridibus, alis limpidis.—Long. corp. lin. $1\frac{1}{4}$; alar. lin. $1\frac{3}{4}$.

Hab. ———, ex Musæo Rev. G. T. Rudd.

20. *PTEROMALUS ORINUS* ♀, viridis, abdomine cupreo basi viridi, antennis fuscis, pedibus fulvis; femoribus viridibus, alis limpidis.—Long. corp. lin. $\frac{2}{3}$; alar. lin. $1\frac{1}{4}$.

Hab. prope Londinum.

21. *SCLADERMA LALAGE* ♀, viridis, abdomine cyaneo, antennis nigris, pedibus fulvis; femoribus viridibus; tibiis tarsisque apice fuscis, alis sublimpidis.—Long. corp. lin. $1\frac{1}{4}$; alar. lin. $2\frac{1}{2}$.

Hab. in Scotiâ, prope Edinam, Dr. Greville.

Read also a continuation of Dr. J. D. Hooker's Enumeration of the Plants of the Galapagos Islands.

November 4.

The Lord Bishop of Norwich, President, in the Chair.

Read a memoir "On the *Ambrosinia ciliata* of Roxburgh." By the late William Griffith, Esq., F.L.S. &c. Communicated by R. H. Solly, Esq., F.R.S., L.S. &c.

In this paper, written at Calcutta in the year 1835, Mr. Griffith enters into a lengthened examination of the characters and development of the singular plant above named, to which he states his attention to have been first directed by Dr. Wallich, who was pre-

The existence of stomata in the submerged leaves of *E. setaceum* is mentioned as rather corroborating than weakening the general rule laid down by M. Adolphe Brongniart, that submerged leaves are destitute of cuticle. The stomata of *Eriocauloneæ* are described at length, and regarded as offering excellent examples of the correctness of M. Brongniart's statements with regard to the nature of these bodies. Their aperture communicates directly with the interior of the leaves, and is invariably occupied by air; the communication in *E. setaceum*, and in two other species in which the parenchyma is confined to the upper surface, being uninterrupted; while in the leaves of those species in which the parenchyma is deposited on the lower as well as the upper cuticle, there is invariably an open space left in it, corresponding with each stoma, and this opening appears always to be occupied by a bubble of air. The author states, however, that he is far from considering it proved, that such a free communication through the stomata, although the same structure is obvious in other plants belonging to different families, is universally present.

As *Xyrideæ* present none of the peculiarities of organization above mentioned, Mr. Griffith considers these peculiarities as corroborative of the correctness of Richard's opinion, since adopted by Professor Von Martius, that *Eriocaulon* is the type of a distinct family.

December 16.

E. Forster, Esq., V.P., in the Chair.

George Bowdler Buckton, Esq., was elected a Fellow.

Read a memoir "On the causes of disjunctions of Vegetable Substance, especially those which are horizontal." By the Rev. William Hincks, F.L.S. &c. &c.

After some preliminary observations on the subject of disruptions in general, the author briefly notices certain cases of vertical disruption, and then proceeds to the more immediate object of his paper, the horizontal separation of vegetable substance by natural means. This, he observes, may take place in the axis itself, or in any of the organs connected with it at their points of attachment, as in the fall

of the leaf, of sepals and petals, of entire flowers and fruits, and in the separation of such buds as form caulinary bulbs; or it may occur at some other part of the organ, a portion separating from the rest, or the whole breaking up into pieces. Every such separation, he argues, must depend on one of the three following causes: 1. on a stoppage of the circulation from ligature; 2. on unequal rapidity of growth of the two parts; or 3. on the confinement within coherent envelopes (which do not admit of extension) of a portion of the axis or of some growing part, so that the force of growth bursts the envelope, carrying off its upper portion. These general rules he then proceeds to apply to the explanation of particular cases.

Of stems usually termed Articulate, some, such as those of *Kleinia articulata*, have no tendency to disruption at the supposed joint, which is merely the commencement of a new branch. In the misletoe, on the other hand, the author believes that the tendency to divide at the bases of the branchlets may be consequent on the dichotomous structure, which causes a pressure equivalent to a ligature at the point of division.

With respect to the fall of the leaf, he refers to the observations of DeCandolle and Du Petit Thouars, which he does not think sufficient to account for that phænomenon in a multitude of cases, but regrets that he can throw no additional light on the subject. He attributes the separation of the sepals and petals when they are caducous, to the outward pressure occasioned by the more rapid development of the interior circles stopping the circulation of the fluids, and conceives this to be strikingly exemplified in *Papaveraceæ*, where the growth of the petals within the bud is great and rapid. He notices a specimen of *Eschscholtzia* in which the sepals cohering less firmly than usual, the calyx, instead of being thrown off in the form of a calyptra, remains after the opening of the flower partially adhering; and observes that the ordinary disruption in this genus takes effect, not at the base of the sepals, but at a point above this, where the pressure occasioned by the enlargement of the petals is greatest. He instances also the genus *Eucalyptus*, in which there is a strong coherence of the sepals, and the lower portion of the calyx being strengthened by the adherent torus, the growth of the interior organs supplies the force which separates the part of the coherent sepals above the torus in a solid piece like the cover of a vessel. On the cause of the horizontal separation of a portion of the anthers in the form of valves, which occurs in a few instances, he is not prepared to offer any opinion.

In the fruit, as in the calyx, the author believes that horizontal

disruption arises from the force of cohesion of the parts of the circle, the absence of any of the causes favourable to dehiscence along the midrib of the carpellary leaf, and the operation of some force pressing either from without or from within on one particular line encircling the fruit; and he proceeds to offer explanations of those cases with which he is most familiar. He takes first the circumscissile capsule of *Anagallis*, in which he states that the central free receptacle with the seeds upon it continuing to enlarge in both diameters after the envelope has ceased to grow, and having occupied from the first the entire cavity, it is naturally to be expected, since the chief extension of the interior parts is upwards (the natural direction of growth), while the enlargement of the seeds in the lower half tends to press back the parts of the lower hemisphere, that uniform and regular pressure will resolve a nearly spherical capsule into two equal hemispheres. This remark he applies to *Centunculus* also, but confesses himself at a loss to give any reason why the opening of *Trientalis*, which depends on the same general causes, should be irregular. For the separation of the lid of the capsule in *Hyoscyamus* he accounts by the contraction and rigidity of the throat of the calyx exercising a gradually increasing pressure around the upper part of the capsule, and thus causing its separation by the first of the general principles laid down.

The author then proceeds to the case of *Lecythis*, which he thinks is to be explained by the third of his general principles. In illustration of this principle he refers to a monstrosity of the common Tulip, described and exhibited by himself some years ago at a meeting of the British Association. In this monstrosity, the upper leaf, being unusually developed, has cohered by its edges so firmly as to imprison the flower, and this constraint occurring at a period when the stalk was increasing in length, and previous to any considerable enlargement of the flower-bud, the force applied was chiefly vertical, and has carried off the upper part of the leaf in the form of a calyptra, leaving the lower part in the shape of a cup, from the centre of which the stem appears to rise. The separation of the lid of the capsule of *Lecythis* he believes to be effected in an analogous manner; the septa which form the two or four cells into which the fruit is divided meet in a thickened axis, and the outer part of the fruit becoming (partly from its natural texture and partly from the adherence of the torus and calyx) hard, solid and fully grown, while the axis continues slowly to extend, and thus to press upwards that portion of the capsule which rests upon it, causes that portion first

to become slightly prominent, and finally by a strain upon the vessels of that particular part to fall off in the shape of a lid. In *Couroupita* the pressure is sufficient to mark the surface of the fruit with a prominence, but from the partitions giving way early, and from the abundant juices produced in the interior, there has not been, he conceives, sufficient pressure to occasion disruption. In all the species of *Lecythis*, he observes, the extent of the loose cover corresponds with the extent of the axis, and what remains of the latter continues attached to it.

As regards lomentaceous fruits in general, the author believes that the intervals between the seeds being sufficient to admit of the sides of the fruit cohering (which is promoted in particular instances by special causes), the swelling of the seeds afterwards stretches the parts over them in a degree which this coherence prevents from being equally distributed, drags the tissue forcibly from the junctures which are fixed points, and thus there being a strain in each direction from the middle line of the juncture, the contraction of drying during the ripening of the fruit effects the separation.

Finally the author refers to the horizontal separations in the capsules of *Mosses*, and observes that the separation of the calyptra affords a plain example of the operation of his third principle; but with regard to the nature of the operculum, although he has an hypothesis under consideration, his mind is not yet satisfied. He states his object in the present paper to have been the investigation of the immediate physical causes of certain known effects, but he has not thought this the place even to touch upon their ultimate causes or the ends to accomplish which they are apparently designed, and which adapt them to the position and general structure of the particular plant.

Read also the conclusion of Dr. J. D. Hooker's "Enumeration of the Plants of the Galapagos Islands, with descriptions of the new species."

In a brief introduction Dr. Hooker offers his acknowledgements to Mr. Darwin, by whom the collection on which this enumeration is chiefly founded was made, and to Prof. Henslow, in whose charge the collection had been placed, and who kindly relinquished his intention of publishing the novelties contained in it in favour of the author. He also notices the striking peculiarities which mark the flora of the Galapagos group, the plants composing which not only differ in a great degree from those of any other country, but are in many

cases peculiar to the separate islands, although in those instances frequently representatives of others which are found on different islands.

The number of species enumerated is two hundred and twenty-eight. Of these upwards of a hundred are described as new, and six new genera are established, the characters of which are given as follows :—

Ord. BORAGINÆÆ.

Gen. GALAPAGOA, Hook. fil.

Calyx 4-5-partitus; laciniis linearibus. *Corolla* infundibuliformis; tubo lato; limbo 5-fido patente; fauce nudâ. *Stamina* 5, inclusa, imo corollæ tubo inserta. *Ovarium* 4-loculare. *Stylus* terminalis, ad basin usque bipartitus; stigmata 2, obtusa. *Semina* pendula; albumine parco, carnosio; cotyledonibus planis; radiculâ majusculâ, superâ.—*Herbæ Insularum Galapagos, hispidopilosæ*. *Caules prostrati, ramosissimi*. *Folia alterna, coriacea, versus apices ramulorum densissimè conferta*. *Flores parvi, in axillis foliorum omninò sessiles, valdè inconspicui*.

Obs. Genus *Ehretiearum* inter *Coldeniam* et *Rhabdiam* (secund. clariss. Bentham) medium, ob stylum bipartitum staminaque fundo corollæ inserta singulare.

Ord. SOLANÆÆ.

Gen. DICTYOCALYX, Hook. fil.

Calyx cylindraceus, 5-fidus; lobis acutis; tubo post anthesin subinflato, membranaceo, reticulatim venoso. *Corolla* membranacea, subinfundibuliformis; tubo gracili gradatim supernè ampliato; limbo plicato, brevi, vix explanato. *Staminum filamenta* elongata; antheræ inclusæ. *Ovarium* disco carnosio insertum; stigmatibus capitato. *Capsula* evalvis, indehiscens, bisulcata, incompletè 4-locularis, calyce ventricosio inclusa. *Semina* plurima, majuscula, tuberculata, dissepimenti medio prope angulum parietalem affixa; testâ nitidâ, obscurè granulatâ. *Endryo* arcuatus.—*Herbæ Americanæ, repentes, glanduloso?-pubescentes, cum tribu Daturearum, suadente Clariss. Miers, conferendæ*. *Folia membranacea, angulata v. sinuata, subopposita v. bina*. *Flores axillares*.

Ord. COMPOSITÆ.

Gen. DESMOCEPHALUM, Hook. fil.

Capitula in axillis foliorum densissimè congesta, monoica, 6-flora; floribus 3 fœmineis ligulatis, cæteris masculis tubulosis. *Involucrum* compressum; foliolis 3-5 inæqualibus. *Receptaculum* minimum, epaleaceum. *Corolla fœminea* tubo brevi, lato, piloso; ligulâ latâ, involutâ, bifidâ: *mascula* 4-fida, dentibus extûs hispido-barbatis. *Antheræ* ecaudatæ. *Stylus* floris masculi indivisus, acutus; floris fœminei in ramos 2 elongatos desinens. *Achenium* latè obcuneatum, compressum, subtrigonum, supernè pilosum, foliis involucribus immutatis tectum.—*Genus Elviræ affine*. *Radix annua*. *Caulis pedalis, herbaceus, teres, erectus, a basi*

trichotomè divisus; ramis ascendentibus pubescentibus. Folia opposita, petiolata, ovata, obtusa, duplicato-serrata, coriacea, suprâ scabriuscula, nitida, subtus pubescentia, nigricantia. Capitula axillaria, densissimè congesta, massam depresso-sphæricam semunciam latam efformantia. Involucri foliola latè ovata, acuminata, hispida. Corolla valdè inconspicua.

Gen. MICROCÆCIA, Hook. fl.

Capitula axillaria, pauca, valdè compressa, monoica, subtriflora; floribus fœmineis ligulatis, masculis tubulosis. Involucrum compressum, 3-4-foliolatum; foliolo unico latè obovato, unilaterali, cæteris parvis collateralibus. Receptaculum minimum, epaleaceum. Corolla floris fœminei tubo gracili; laminâ rotundatâ, obscurè crenatâ: floris masculi 4-fida; tubo supernè ampliatus; segmentis extus barbatis. Antheræ semi-exsertæ, ecaudatæ. Stylus floris fœminei in ramos 2 elongatos desinens; floris masculi indivisus. Achenium cuneatum, compressum, obscurè trigonum, parcè pilosum.—Herba pusilla, repens, scaberula; ramis gracilibus, ascendentibus. Folia opposita, petiolata, rigidula, ovata, acuta, serrata, suprâ hispidula, subtus cuna, venis prominulis. Capitula minima, breviter pedicellata. Involucri foliolum exterius planum, acuminatum, nervosum, marginibus basi involutis. Flores exserti, flavi.

Gen. MACRÆA, Hook. fl.

Capitulum multiflorum, heterogamum, radiatum; floribus radii squamis involucri tectis, paucis, 1-seriatis, fœmineis; disci tubulosis. Involucrum hemisphærici squamis sub-2-seriatis, disco brevioribus. Receptaculum convexum, paleaceum; paleis deciduis flores involucrantibus. Corolla radii tubo brevi gracili, ligulâ latâ bifidâ; disci tubo 4-fido, dentium marginibus incrassatis. Antheræ breviter appendiculatæ. Stylus floris radii in ramos duos obtusos desinens; disci ramis cono latiusculo terminatis. Achenium obovato-cuneatum, compressum, trigonum, hispidum, pappo brevi e squamis paucis ciliatis coronatum.—Genus Heliosideis relatum. Frutex; ramis erectis virgatis, nodosis. Folia in ramis abbreviatis fasciculata, rigida, linearia, integerrima, pilosa, suprâ nitida, marginibus revolutis. Pedunculi folia superantes, graciles, sericei. Capitula sphærica. Flores flavi, radii pauci. Receptaculi paleæ lineares, apicibus incurvis acuminatis, dorso hispidis.

Ord. Incert.

Gen. PLEUROPETALUM, Hook. fl.

Calyx persistens, bipartitus; sepalis latè ovatis. Petala 5, subæqualia, libera, concava, coriacea, siccitate multicostata. Stamina 8, toro inserta; filamentis in tubum membranaceum coalitis; antheris elongatis, ovarium vix superantibus. Styli 4, lineares. Ovarium 1-loculare, pluriovulatum; ovulis placentæ basilari funiculis elongatis adnexis.—Suffrutex? perennis, glaberrima, siccitate nigricans; ramis teretibus, strictis, apicem versus foliosis. Folia petiolata, patentia, elliptica, utrinque attenuata, longè acuminata, integerrima. Flores in paniculas breves,

paucifloras, terminales dispositi, breviter pedicellati, inconspicui. Calyx parvus, carnosus. Petala majuscula.

Obs. Genus nulli ordini arctè affine, habitu *Phytolaccæ*.

January 20, 1846.

R. Brown, Esq., V.P., in the Chair.

Robert James Nicholl Streeton, Esq., M.D., and Robert Marnock, Esq., were elected Fellows.

Read a memoir "On the Structure of the Ascidia and Stomata of *Dischidia Rafflesiana*, Wall." By the late William Griffith, Esq., F.L.S. &c. Communicated by R. H. Solly, Esq., F.R.S., F.L.S. &c.

This paper bears date at Mergui, November 7th, 1834. In it the author gives a detailed description of the arrangement, form and structure of the ascidia of the species of *Dischidia* above-named, and comes to the conclusion that they are modified *laminæ* of leaves, in proof of which he adduces : 1st, their similarity in texture, internal structure, and structure of stomata with the limbs of the ordinary leaves ; 2ndly, the slight but constant tendency in the limb of the leaves to assume an involute form ; 3rdly, the occurrence of an imperfectly transformed pitcher, in which the body of the pitcher is clearly referable to the limb of the leaf ; and 4thly, the general construction of the petioles in *Asclepiadeæ*, which renders it more natural to refer the ascidia to the limb of the leaf in that family. He regards the inner surface of the pitcher as corresponding with the upper surface of the leaves ; and is confirmed in this view by the greater abundance and development of the stomata on those surfaces. On the lower and outer surfaces the stomata are more or less imperfect ; but on the upper and inner they show a considerable degree of complexity. They are particularly remarkable for the existence of an external cellular *bourrelet* or thickening, much elevated above the surface and of a whitish colour, giving rise to an appearance of minute white dots, which are especially conspicuous on the purple inner surface of the ascidia. They appear to have a very slight connexion with the cuticle, from which they are easily detached, and are not met with on old ascidia. Each *bourrelet* is composed of from